





*Hamilton Willis* 8

*with the regard of*

THE RAILWAY.

*John A. Poor*

REMARKS

AT BELFAST, MAINE,

JULY 4, 1867.

BY

JOHN A. POOR.

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## THE RAILWAY.

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MR. PRESIDENT, LADIES, AND GENTLEMEN :—

I AM happy to be here to-day. I am glad to participate in the interesting services of this day's celebration. I rejoice in the opportunity of revisiting this city under such flattering auspices, whose beauty of situation was indelibly impressed upon my mind in early life, and where for the first time my eyes beheld the sea.

Reared among the hills of Oxford, where the hoary summits of White-Cap and Bald-Pate rear their lofty heads high above the surrounding mountains, my imagination was stimulated by familiarity with the most beautiful valleys and the grandest mountain scenery of New England; but my heart panted for a sight of the ocean, whose sublimer aspects and mysterious revels had been pictured to my youthful mind by stories of travellers and descriptions in the impassioned language of poetry; and when, a boy of twelve, I first beheld in the clear sunlight of a winter's morning the outstretching waters of Belfast Bay, — embosomed by its surrounding hills and distant islands, — I experienced all those sublime emotions of delight that Wordsworth

has recorded in the finest of all his poems, "The Wanderer," as enjoyed by the young Herdsman, when on the top of the high mountain

"He beheld the sun  
Rise up, and bathe the world in light ! He looked, —  
Ocean and earth, the solid frame of earth  
And ocean's liquid mass, beneath him lay  
In gladness and deep joy. The clouds were touched,  
And in their silent faces did he read  
Unutterable love. Sound needed none,  
Nor any voice of joy ; his spirit drank  
The spectacle ; sensation, soul, and form  
All melted into him ; they swallowed up  
His animal being ; in them did he live,  
And by them did he live ; they were his life.  
In such access of mind, in such high hour  
Of visitation from the living God,  
Thought was not ; in enjoyment it expired."

The memories of more than forty busy years crowd in upon my thoughts to-day. My desires were then as wild and fathomless as the great deep, and the recollections of a not inactive life have already taught the lesson, that experience alone can teach, that the achievements of a man's life are of trifling account as compared with the boundlessness of youthful hope and aspiration.

This first visit to the seaside influenced no doubt my whole life,—made me fond of adventure on the ocean, eager for geographical knowledge, and studious of those agencies that stimulate commercial progress. I love the ocean with almost filial devotion, and without a daily sight of it I am never fully satisfied and contented. Mrs. Hemans has beautifully expressed this sentiment in her charm-

ing song, "Where is the Sea?" — the Greek island-er's lament on being taken to the Vale of Tempe, the most beautiful of all the valleys of that classic land. He exclaimed, —

"Where is the sea? I languish here, —  
Where is my own blue sea?  
With all its barks in fleet career,  
And flags and breezes free?"

"O, rich your myrtle's breath may rise,  
Soft, soft your winds may be;  
Yet my sick heart within me dies —  
Where is my own blue sea?"

A sentiment like this animates thousands of youthful minds, — sons of Maine in other lands to-day; for we have in Maine valleys as sweet as those which inspired the mind of the poetic Greek, or in later times the more voluptuous taste of Moore, and we have the sparkling waves of the ocean, sea-views and island retreats, more beautiful than any on which the eye of the Greek mariner ever rested, — made more impressive still by the swelling and receding tides, whose ebb and flow was unknown to the waters of the Greek Archipelago; and the beautiful forms which, in Grecian mythology, came forth from the flashing foam of the Ægean Sea, are rivalled and surpassed by these forms of beauty, — shaped, and moulded, and heightened into more perfect grace by the healthful climate and charming scenery of Maine, — whose presence and whose smiles greet and encourage us to-day.

But this is no time for poetic fancies. The prac-

tical duties of the hour are upon us, and responsibilities greater than those resting upon any other people are devolved upon the sons and daughters of the Great American Republic, — of which Maine is no unimportant part.

We celebrate to-day the ninety-first anniversary of American Independence. It is our duty to celebrate it to-day as never before ; for it is the first Fourth of July that has witnessed the practical working out of the great problem in government which the Declaration of Independence proclaimed and foreshadowed, — “*Equality of man before the law.*”

Since the Fourth of July, 1776, political writers and orators have inculcated the principles which the Declaration of Independence embodied ; but until the present year these principles have failed of complete application in practice.

One month ago this day, on the fourth of June, 1867, was witnessed the first practical application and adoption at the National Capital of the principles proclaimed by the Declaration of Independence, that “all men are created equal.”

This great principle being now established, it may be proper that the National Holiday be, in part, given up to the discussion of other than political questions, — those of great commercial and social value, like the railway and works of public improvement. Next to the enjoyment of life, liberty, and the pursuit of happiness, no question so directly concerns every man, woman, and child of the community, as that of cheap locomotion.

Travel is the great educator of man. Men are intelligent in proportion to the number of objects and facts they have studied or observed.

Of all agencies known to civilized man, the railway is now universally admitted to be the greatest. The war which has just closed has demonstrated the value of the railway for purposes of war as well as peace; for without the use of the locomotive railway, the slaveholders' rebellion would not at this day have been crushed.

But before speaking of the railway, it is our duty to pay a passing tribute to those who have achieved success in our great struggle, and in whom has been developed the loftiest sentiments of nationality, which throw into shade the boasted loyalty of other lands and other times. Men worship an idea. Respect for Roman law and the Roman senate enabled that body to conquer the world. The brilliant achievements of Napoleon the Great raised him in the estimation of the French people almost to an object of idolatry, and this sentiment is the chief, if not the only support of the throne of his nephew, the ill-fated despot of France.

But no such devotion to an idea as that which characterized the young men of the original Free States in the recent war has ever before been exhibited in the annals of recorded history. The Spartans who fell at Thermopylæ, and the La Vendéans who gallantly gave up their lives in defence of an idea in the time of the French Revolution, never exhibited

greater devotion than the sons of Maine exhibited on numerous battle-fields of the war,—saving the retreat of McClellan on the Peninsula, holding Cemetery Hill at Gettysburg, and by the immortal achievements of our Eighteenth Maine Heavy Artillery at Spottsylvania. These young men gave up their lives in the first shock of their first battle, and preserved from serious disaster, if not from defeat, the great army of Grant beyond the Rapidan, by holding the Rebel army at bay and checking a daring flank movement of the enemy.

I saw this gallant regiment, 1,800 strong, march through Washington, in gay trappings to the sound of stirring music, and embark upon the Potomac for the front, on a beautiful Sunday morning in May, 1864. They were full of courage and gallant bearing as I passed through the ranks and shook the hand of many a son of an old acquaintance and friend. The next Sunday after I met the steamer on which 476 of these gallant young men were borne back to Washington, wounded or as corpses.

There is something curious in the feelings of men which leads them to regard the body of a dead soldier who has fallen in battle with different emotions from those felt towards the ordinary dead. Men shrink instinctively from the touch of the corpse of a drowned man, or of one who has died of disease; but the body of a soldier, who in health and strength and beauty's pride has gone to his final account from the field of his fame, is as beautiful in death as life, and

we pass among the coffins to read the names of their occupants as carelessly, if not as cheerfully, as we pass among the ranks of the living.

This regiment lost 1,173 men, from May, 1864, to January, 1865, of whom 1,012 fell in battle or died from their wounds, — a slaughter unparalleled in the history of modern warfare.

Many tales of the heroism of this regiment are related, one of which I venture to recall to memory. Two brothers were marching side by side; one received a mortal wound in front, and fell. The outstretched arms of his brother were instantly around him. "It is all over with me," said the dying soldier; "lay me down and go back to the ranks, where you are wanted; it is no use to waste a moment's time on me": and so he died.

" Between the men who noble deeds have done  
And every poet, to the end of time,  
There is a brotherly communion:  
One Father-God has made them both sublime."

What was the sentiment that animated this youthful hero? It was love of our nationality, pride in our national union; it was devotion to the cause of national unity and freedom.

No sentiment stronger than this has ever animated a people in war, no loyalty to a reigning house, no devotion to a great military leader, has ever exhibited such strength of attachment and such determined valor as that which animated our young men, who went forth to battle for the principles of our government, symbolized and enshrined in the star-spangled banner of the Republic.

“ Long shall it wave  
O'er the land of the free, and the home of the brave.”

The history of the war is yet to be written. This is not the time to call the roll of its heroes. The West proudly boasts its mighty names, and Ohio points with pride to those of her three sons, — GRANT, SHERMAN, and SHERIDAN.

New England has her great names also; and Maine with equal exultation presents the names of three of her sons as renowned in the annals of war, — one, alas! already summoned from the field of his fame to his final account, who for tried valor, coolness in danger, and brilliant achievements on the field of battle, had no superiors, — BERRY, HOWARD, and CHAMBERLAIN.

If some should object that this day's work breaks in upon our New England custom of devoting the day to political subjects, we may point to distinguished examples for our justification.

Fifty years ago this day, on the Fourth of July, 1817, De Witt Clinton, — a name ever honored in our annals as the great leader of public improvements in the Empire State, — with public ceremonies commenced the work of constructing the Erie Canal, which connects Lake Erie at Buffalo with the Hudson River at Albany, a distance of 364 miles, — the first great step in making New York City the commercial emporium of the New World.

Twenty-one years ago to-day ground was broken at Portland, July 4th, 1846, in the commencement of the Atlantic and St. Lawrence Railroad; and the



honored Chief Magistrate of Maine, then as now a citizen of Belfast, signalized the event by striking the first blow in a work that connects the open sea at Portland with the St. Lawrence at Montreal, a distance of 292 miles, which line has since been absorbed into the Grand Trunk Railway of Canada, with an unbroken line of iron from the waters of Casco Bay to the distant shores of Lake Huron,—forming, in all its connections and extensions, a railroad of 1,377 miles, under one management,—the greatest number of miles of any railway company in the world.

I shall never forget that occasion, for it was with fear and trembling that the heretofore *deserted village* of Portland, with a population of 15,000, and a valuation of less than \$ 5,000,000, pledged everything to the construction of a railway to the border, to connect *there* with a line to be constructed from Montreal to the same point, forming in connection the Portland and Montreal Railway ; the completion of which line from Portland harbor to the boundary cost a greater sum than the aggregate of all the estates, real and personal, in the city of Portland at that day.

Governor Anderson I recollect as a merchant of Belfast when I first visited it, and my heart went out toward him when I saw him, as Governor of Maine, inaugurate the commencement of a work to which my thoughts and labors had been directed. I should be glad to meet him here to-day, to tender him hearty thanks for the great service he performed for the State, by giving to that work the sanction of his name and the influence of his position as Governor.

In the presence of the assembled Senators and Representatives of Maine, surrounded by a vast concourse of citizens and strangers, that great work was entered upon, and has gone forward to successful completion ; and "the small fishing-town" of Portland, as it was derisively called by our jealous neighbors of the Bay State, has become a metropolitan city, with a valuation six times greater than it then had, and improved in still greater ratio in all the elements of prosperity and success.

And here again allow me to acknowledge a later debt. When the city of Portland was laid in ashes by the great fire of July 4th, 1866, Governor Anderson was in Washington ; and when some public men of Maine held back, from a sentiment of false delicacy, he was prominent and efficient among those who moved in the matter of taking up subscriptions in Washington, extending not only a proper feeling, but influencing by this feeling the action of Congress in favor of aid. It seems proper that Portland should acknowledge this debt, though I hope she will not be called on to return in kind. One of her most public-spirited merchants,\* who favored your enterprise as the Chairman of the Railroad Committee in the last Legislature, I am glad to see with us to-day, in full sympathy with your movement as one of the great enterprises of the State.

You propose to commence the construction of a work of equal importance to your city as that begun

\* Hon. George W. Woodman.

at Portland twenty-one years ago. Situated midway between the two extremes of our State, on its ocean front equally distant from Kittery Point and Quoddy Head, with a deep and capacious harbor, open at all seasons of the year, Belfast was selected by the chief of the United States Topographical Bureau, Colonel Long, as a proper terminus of a proposed railway from Quebec to the open Atlantic sea. The necessity of such a work as a direct communication from the St. Lawrence to the open sea on this ocean front was pointed out to his government by the heroic and sagacious Champlain, the illustrious founder of French colonization in America, more than two hundred and thirty years ago, and the failure of the French government to carry out his plans cost France the noblest empire of the New World. By holding this Atlantic front, now known as the *Gulf of Maine*, and retaining what she for years held, the basins of the St. Lawrence and the Mississippi, France would have held to-day a "dominion" in America greater than that recently organized on our northern border, and vastly greater than that now held by the United States.

But political and military notions bear no comparison in power to commercial ideas. It was the commerce of the Lakes and Upper St. Lawrence that made Montreal superior to Quebec. Montreal is at the head of sea navigation in the summer months, and the St. Lawrence canals have made her a competitor of New York in summer for Western trade. The inception of these works, even before their com-

pletion, demonstrated the necessity of an outlet by railway from Montreal to an open winter harbor. This necessity gave us the line of railway from Portland to Montreal, at a cost exceeding \$12,000,000. This great line, after going through the discipline which all great enterprises must undergo, will emerge into complete success, and become the greatest carrier of freight of any line of railway extending from the seaboard to the Upper Lakes.

The inception of this great enterprise of a railway to Montreal was the beginning of the Maine railway system. Maine lies between the Upper and Lower Provinces like a wedge. The people of Maine objected, in 1837, to the construction of a line of railroad from St. Andrews to Quebec across our State as a provincial or imperial measure ; but when in 1843 a plan was proposed in Maine, of an international line of railway across the breadth of our State, connecting Halifax with Montreal by the easiest and most direct route, the people of Eastern Maine were but too ready to agree to it, though appalled at the magnitude of the suggestion. To construct a line of railroad for a distance of 835 miles, portions through an unbroken wilderness, seemed to them beyond the power of the men of this generation. Hence, instead of being undertaken as a whole, it was to be taken up by sections.

By the European and North American Railway and the Grand Trunk Line the distance from Halifax to Montreal is 835 miles, as follows : —

*International Line.*

Halifax to Truro . . . . .	61 miles.
Truro to New Brunswick frontier . . . . .	73 "
Nova Scotia boundary to Moncton . . . . .	36 "
Moncton to St. John . . . . .	92 "
St. John to Maine frontier . . . . .	88 "
Maine frontier to Bangor . . . . .	108 "
Bangor to Danville Junction . . . . .	110 "
Danville Junction to Montreal . . . . .	267 "
Total . . . . .	835 "

Of this 835 miles, 539 are built, and 296 in process of construction.

With the main purpose constantly in view, the line to Montreal was publicly proposed in 1844, commenced upon July 4th, 1846, and completed so that cars ran through from Montreal to Portland, July 18, 1853. The plan was to carry a single line from Portland east, by the way of Lewiston, Gardiner, Augusta, Waterville, and Bangor, using the line of the Montreal road as a common trunk for the time being as far as Danville Junction, throwing off branch lines as wanted, extending one from Yarmouth or Pownal to Brunswick and Bath, one up the Kennebec River, and another to Belfast, &c. No sooner had the Montreal road been started on this plan, than a rival line from Portland to Brunswick and up the Kennebec Valley was set on foot, forming two rival lines the whole distance from Portland to Waterville.

This antagonism stimulated the people on the two routes, led both companies into hasteful and wasteful expenditures, — causing the lines to cost largely in excess of any need, and to become rivals and competitors for business.

This has been a serious drawback. It discouraged the people of other communities from embarking in railway projects, and has begotten hostility of gauges and unfriendly contests in legislation to this day.

This state of things has created distrust in railway securities and delayed the carrying out of the great Eastern line and other important enterprises.

But the great enterprise of the State is now secured beyond all peradventure. The State aided the European and North American Railway by the grant of its claims against the United States which accrued prior to 1860, and of her interest in the public lands. Massachusetts granted her claims against the United States, held jointly with Maine, to the same object; and these claims, with the \$500,000 already expended on it, and the aid the city of Bangor has given, have been sufficient to interest capitalists in the larger cities of the country; and responsible parties propose to complete the links in the chain from Bangor to St. John city, — the Province of New Brunswick donating \$13,500 per mile for Western extension, the section of eighty-eight miles from the boundary to the city of St. John. The balance of the money required beyond the New Brunswick gift and the Bangor loan of \$1,000,000, to complete the line from Bangor to St. John, is to be raised on the first mortgage bonds of each company, with the public lands of Maine as an additional security on Maine's portion of the line.

The valuable aid received from Massachusetts was secured mainly through the services of three distin-

guished public men of that State, — one a native of Maine, who, as Governor of Massachusetts through the whole period of the Rebellion, gained a national reputation second to that of no one in the country ; \* another, for years a resident of Maine, returned to Massachusetts without losing his love for our own, and who, as member of the Legislature of that State, has been enabled to render most important services to our own. † And we owe a debt of gratitude to the gentleman who, for two years past, has so ably filled the office of Speaker of the House of Representatives of Massachusetts. ‡

New Brunswick, Nova Scotia, and Prince Edward Island, with 48,584 square miles of territory, contained, in 1861, 663,394 inhabitants.

Full of natural advantages and resources, from their fortunate position, their unequalled maritime advantages, their numerous harbors and bays, swarming with the choicest fish, their treasures in coal, iron, sand-stones, gypsum, grindstones, gold, and many other valuable minerals, their extensive timber forests and rich soils, — these Provinces only need access to the markets of the United States to become as rich and populous as the older States of New England.

The business of a trunk line connecting these districts with the markets of the United States must prove remunerative of the small cost of its construction.

\* Governor John A. Andrew.

‡ Hon. James M. Stone.

† Hon. George O. Brastow.

From St. John to Halifax, a distance of 262 miles, the line is built, or in process of construction, so that within three years the entire line across the breadth of our State from Piscataqua at Kittery to the St. Croix, a distance of 300 miles, will be finished, completing the chain of railway between Halifax and New York, a distance of 940 miles, connecting Halifax, or the most eastern Atlantic port, with Portland, Montreal, and Chicago at the North, and Boston, New York, and Washington at the South.

The line once completed from Halifax to New York, all the ocean steamers must make its eastern terminus a port of call, and it will intercept the ocean travel coming from Europe. The bulk of the business travel, and much of the pleasure travel between Europe and America will take this route.

The terms employed by a leading London journal, speaking of the Portland convention, may be appropriately quoted in support of the views herein expressed:—

“EUROPEAN AND NORTH AMERICAN RAILWAY. — It is with extreme satisfaction we observe, that at no distant day the Atlantic is to be bridged over by means of such an improved system of communication, that the Old World and the New will, by means of rail and steam, be brought nearer to each other than Leith and London are, by the average voyages of their smacks. From the westernmost point of Galway to the easternmost point of North America the sea voyage will be easy of accomplishment within five days, and already the plans of the railroads from these points to the interior of both countries have been fully matured, and the undertakings to a great extent subscribed for.

“North America will then be to England what Scotland now is. The inhabitants of each country will reside almost indifferently in



either. Our Senators, in place of hastening at the close of the session to get off to grouse and the moors, will bolt from St. Stephens to the prairies and buffalo-hunting. Our fashionable *ennuyés* will winter at New Orleans or St. Louis, in place of Rome and Naples, and our nobility and gentry will have their demesnes and mansions in the Western or Middle States, as well as in the mother country. The intercourse will be so intimate and universal as to materially modify the habits of life and thought in both hemispheres. England will become more republican and America less democratic. The distinctions and jealousies of the two States will become obliterated by becoming ridiculous; because people of the same origin, blood, language, history, literature, and traditions, in daily and hourly communion with each other,—those having the strongest social and moral affinities being the most like to find each other out.

“Let this tide of intercourse once fairly set in,—let the United States become the fashionable, and the easy retrenching and retiring resort of our nobility, gentry, farmers perhaps, and superannuated merchants, and the tide will flow on like the Propontic, ‘which knows no retiring ebb.’”

When the charter of the European and North American Railway Company was granted in 1850, only two ocean steamers crossed the Atlantic per week; now they are increased to seventeen per week or more, without counting the Great Eastern. In a few years there will be a steamer departing *daily* from each side.

Had there been an union of effort and of interest, in room of rivalry and competition, the line from Portland to Bangor would have been as profitable as that between Portsmouth and Portland,—a paying line from the start,—and secured long before this

the line to St. John and Halifax, with as many branch lines on either side as the interest of business would have required.

A paying line from Portland east would have attracted capital from the large markets at moderate rates of interest, and not drawn heavily upon the resources of the people, as did the building of these two lines upon the people on both routes in Maine.

These unfortunate rivalries exhausted the means of both companies, and put Maine back ten years at least in the race of public improvements. It discouraged industry at home, and led our people to emigrate to other lands, so that this State made but moderate progress for the ten years between 1854 and 1864.

But happily the tide has turned. In 1864 Maine changed her policy, aided the railway east as above stated, and has since exhibited a becoming State pride by holding out inducements for the investment of capital within the State, and adopted measures to make known our vast undeveloped resources. The Hydrographic Survey now in progress, when its results shall have been made known, will raise our State, not only in the estimation of its own people, but of those in other lands.

No clearer evidence of progress of ideas in Maine has been shown than in the legislation at the last session in favor of your own enterprise, the railroad from Belfast to Moosehead Lake,—a work that shall connect the waters of this beautiful Belfast Bay,

in the most direct line with the largest and most beautiful of all the lakes of New England. Eventually this line will stretch itself farther northward till it crosses the dividing ridge that separates Maine from Canada, and descends by easy gradients to the St. Lawrence, opposite the ancient citadel of Quebec.

This railroad, reaching from the seaboard to the interior, will impart new value to every farm and to every farm product within striking distance of its line. It will lift the mortgage by enhancing the value of every acre of land, of every bushel of potatoes, every ton of hay, and of every tree of the forest on its way. It will stimulate production by enlarging the market of the farmer, clear the lands of its forests, which, instead of being burnt on the ground and wasted, will be brought to market and turned into gold, while the waterfalls running to waste on the route will be made great labor-doing machines, producing articles of value in various forms of manufacture and in numerous forms of industry.

As the railway advances farther and farther into the interior, its influence will widen like a fan or the spreading branches of a great tree, attracting the traffic and the travel of a wider and wider belt of country as it marches inland, each branch of this ever-expanding tree attracting more and more of the business of the surrounding country; while a development of business is going forward on the line almost in geometric progression, by the combined influence of increased capital and quickened

circulation, extending over the whole breadth of country brought within the reach of its influence.

As your railway reaches the line of the Great Eastern trunk line at Newport, now the Maine Central Railroad, whose President I see with us to-day, it will draw to the open waters of your harbor whatever seeks the cheaper conveyance of water; for of all methods of transportation, none is so cheap as that upon navigable rivers or the open sea.

It used in olden times to cost a dollar to carry a hundred pounds 100 miles by wagon transportation. The railway will carry the same load at a profit the same distance for one tenth of that price, or for \$2 per *ton*, while by water conveyance, in ordinary times, the same load will be carried for a one tenth of the cost of railway transit, or at the rate of twenty cents per ton for 100 miles, for goods that do not require despatch, like bricks, lumber, granite foundation, slate, iron, and other like commodities. Hence all merchandise and the produce of the interior seek the nearest route to the open sea. Trade concentrates and capital is planted at those points where the transfer is made from land carriage to the sea-going craft.

This is what has built up commercial towns in this and other countries. It is this that has built up New York, New Orleans, and of late given such an impulse to the business and trade of Portland.

For twenty-four weeks of the year steamers load at Portland for Europe with Western produce brought by the Grand Trunk Railway. The same steamers land at Portland merchandise brought from Europe, destined for Montreal and the West. This business is capable of indefinite expansion, and will be carried on throughout the year, as soon as the working power of the Grand Trunk Railway, and other new lines proposed, shall be equal to the demands of trade. So with the business of your harbor; you are the natural market-place already for a large section of the State. As you reach the lake you will connect with thirty-six miles of the finest inland navigation in summer, and the untouched forests around Moosehead Lake will come to market. Cultivated fields and farms will take the place of the primeval woodlands. The waters of this lake will be vexed with steamers as numerous as those that now ply upon the lakes of Switzerland; and the beautiful headlands now clad in the garb of nature, hiding-places of the moose and the deer, will become classic in after times, like the shores of Lake Leman and the Lake of Geneva, the homes of scholars, poets, and historians.

There is more money value in the forests of Maine than in the farms of Maine to-day. As population increases forests disappear, and the supply of lumber has been exhausted to such a degree that building materials are five times their former price. Wood, which formerly represented only the price of cutting and transportation, has advanced

in a fourfold degree, and there is not a cord of wood on the margin of Moosehead Lake that will not be of value, standing in its native forests, within five years from the time the railway shall reach the lake. It used to cost \$10 an acre, when I was a boy in the country, to clear wild lands. The railway will not only clear the lands without cost, but will pay \$10 per acre for the privilege of clearing it, imparting a clear value of \$20 per acre to all land within striking distance of its line, or of lake navigation.

Gradually the railway will penetrate beyond the lake and clear the land to the very summit of the dividing ridge, giving to every tree and acre of ground a value hitherto unknown, and a population will cluster about this great lake of ours, to which other lines of railway than yours are proposed, like that which is now concentrated around the northern lakes of England and Scotland.

The necessity of this line to the future prosperity of your city impressed itself upon the minds of its leading citizens, and they went to the Legislature and asked the privilege of building it; the gentleman who officiates as President of this celebration, as Mayor of this city, presented a plan asking for the opportunity of resorting to the only method possible for securing it, — the right to tax themselves. They resorted to a measure in some respects novel and original, but which may change the system of constructing railroads in this State. Let me go back a few steps and explain.

The Locomotive Railway came upon the world like a miracle. All previous modes of land conveyance were slow and cumbersome. As the pack-horse relieved the solitary foot-traveller, so the common wagon, the pleasure-carriage, and the stage-coach came in its time to man's relief; but the greatest of all the means of transportation, the locomotive engine, produced in the lifetime of a single generation greater results, affecting man's physical and social condition, than all the agencies of previous times. It contributed to his social advancement, stimulated consumption and production, increased the demand for labor, and relieved the burdens of the operative classes beyond any conception of a previous age, and by the diffusion of knowledge has increased the inventive and productive powers of the human race to an extent that defies all powers of calculation for the future.

The use of a smooth road-bed with a hard surface for the moving of heavy bodies must be as ancient as the Pyramids. The Roman roads, like the Appian Way from Rome to Capua, thence to Brundisium, built by Appius Claudius, Crassus Cœcus, the Roman censor, 313 B. C., might have answered for a road-bed for a modern railway. But the use of a *hard surface* for the bearing of the wheels, different from the ordinary road-bed itself,—the first great discovery in railroad science,—came into use on the Stockton and Darlington road as a tram-way, where wooden rails of a hard substance were used in the room of iron. These wooden rails were afterwards covered

with iron straps, which greatly accelerated the movement of vans or coal-carts drawn over them by horse-power.

In 1825 the Liverpool and Manchester Railway was projected, and the directors instituted inquiry into the comparative advantages of horse-power, stationary steam-engines, and locomotive steam-power, and offered a premium of £ 500 for a locomotive which should not weigh over six tons, consume its own smoke, and draw a load of twenty tons ten miles an hour. The Stephensons, George and Robert, father and son, in October, 1829, produced their engine, the "Rocket," which accomplished the object and won the prize; and afterwards, at the opening of the Liverpool and Manchester Railway in 1830, actually ran at a speed of twenty-nine miles per hour. This established the superiority of the locomotive-engine, and is the date of what we may call the "The Railway System."

I have not time to narrate the history of the invention, but I may say, in passing, that Stephenson's success was due to the introduction of the tubular boiler, securing the largest possible amount of heating surface and the most rapid production of steam. Steam-power never has and never can be supplanted, because in no other form has nature supplied power, or the means of power, in so compact, cheap, and accessible a form as in water, which is capable of a rapid expansion into steam of seventeen hundred times its own bulk.



Since 1830 the railway system has gone forward until the whole civilized world has become more dependent upon it than upon any or all other agencies put together.

During the forty-two years which have elapsed since the laying down of the first railway on the Stockton and Darlington Railroad with strap iron, they have been introduced into every civilized country of the globe. More than \$2,070,988,008 in gold have been invested in the British Isles alone in railway capital, — a sum greater than our present national debt, — with 13,286 miles of railroad in operation, costing \$156,028 per mile, on which 251,862,715 passengers travelled in the single year 1864. The people of England and Wales averaging nine journeys a year for every inhabitant, men, women, and children; those of Scotland  $6\frac{1}{2}$  journeys by each inhabitant, while in Ireland there are but two journeys by each individual. These facts show that the density of population, the industry and productive powers of a country, greatly affect the extent of railway accommodations.

The total receipts for traffic of all the British railways for the year 1865 were \$179,450,000. Expenses, \$86,055,000. Profits, \$93,395,000. The London and Northwestern Railway, connecting Liverpool with London, has, with its branch lines, a total of 1,274 miles in length, with annual receipts exceeding \$31,000,000. The railways of England yield in their gross returns a little over 7 per cent, while the net receipts are a trifle over 4 per cent.

Great Britain and Ireland and the Channel Islands have 122,557 square miles of territory, with a population, in 1861, of 29,070,936 persons, or 253 to the square mile, and one mile of railway to every  $9\frac{1}{4}$  square miles of surface.

In England and Wales, with 58,320 square miles of territory, the population is 20,223,746, averaging 347 to the square mile, with one mile of railway for every  $5\frac{1}{8}$  square miles of territory.

In Ireland one third the income of railroads is derived from the carriage of merchandise. In England, over one half. In Scotland two thirds the income is derived from the freight of merchandise alone. And in the State of New York the freight earnings stand in the proportion of 28 to 13 received from passengers.

As communities advance in wealth and population, the necessities and luxuries of life — as represented by freight transportation — increase far more rapidly than passenger traffic. This is shown on our railways in Maine. On the Maine Central Railroad the proportions are as follows for the year named, ending

	Passengers.	Freight.
May 1, 1851,	\$ 60,023.00	\$ 37,732.00
“ 1860,	145,784.88	140,987.86
“ 1861,	151,191.06	151,908.22
“ 1862,	130,316.32	106,040.30
“ 1863,	178,847.36	125,614.81
“ 1864,	232,498.89	150,610.66
“ 1865,	298,902.35	170,375.88
7 months, 1865,	195,717.09	126,693.28
Dec. 31, 1866,	291,012.61	235,479.57

On the Portland and Kennebec Railroad the figures for the last few years show the following results : —

			Passengers.	Freight.
Year ending August 31, 1860,			\$ 86,994.49	\$ 57,626.51
“ “ 1861,			84,782.54	63,721.38
“ December 31, 1864,			304,917.64	191,909.31
“ “ 1865,			285,291.15	219,816.13
“ “ 1866,			251,485.73	295,796.10

Maine has only one mile of railway to every sixty-two miles of territory. Massachusetts has one to every six square miles, Connecticut one to every seven square miles, Ohio one to every twelve square miles, Pennsylvania one to every eleven square miles, and Illinois one to every seventeen square miles.

At the close of the year 1866 there were 36,896 miles of railway in operation in the United States, costing \$ 1,502,469,085.

We have in the United States no uniform returns like those of other countries, showing the condition and working results of railways. New York has the most complete returns of any State, showing, in 1865, 3,089 miles of railway operated by steam, costing \$ 156,363,203, or \$ 50,000 per mile, whose gross earnings reached \$ 43,742,428 per year, or more than 28 per cent on their cost.

In New York the average travel of each passenger is 45 miles, with 91 persons in each train. Each ton of freight is moved 117 miles to 75 tons per train; passengers are carried for  $2\frac{24}{100}$  cents per mile, freight  $3\frac{25}{100}$  cents per mile.

In Massachusetts, in 1866, her 1,254 miles of road cost

\$ 79,466,774; \$14,000,000 of this capital was invested in roads that paid no dividends, while \$ 54,531,483 of stock in dividend-paying roads received  $8\frac{1}{10}\%$  per cent. The total earnings of Massachusetts roads in 1866, operated by steam-power, were \$ 21,205,527, or an average of 26 per cent on their cost, of which amount \$ 14,534,236 was consumed in working expenses. In 1854 the earnings of the Massachusetts roads of the same length were but \$ 9,973,377, and working expenses \$ 6,936,116. In ten years, or in 1864, the earnings had increased to \$ 16,478,596, and the expenses to \$ 10,496,978.

These facts give an idea of the growth of railway interests; and it is among the singular oversights of Congress, that it has not established a Bureau of Public Works, requiring full returns from railway companies transporting the mails, with accurate accounts as to the extent of lines built, the amount invested in railway capital, and the economical results of working them.

And yet I well remember the scepticism and incredulity with which Stephenson's first experiments in locomotion were received. In 1829 I visited the Legislature of Massachusetts. They had under discussion a resolution, introduced by some daring innovator, expressive of the opinion that a railway from Boston to the Connecticut River would be of public advantage. Its introduction excited the most intense alarm, endangering the credit of the State, and de-

stroying the value of the public securities. "Pass the resolution," said a conservative member, "and who can predict the consequences? If we should say by our acts that such a work would be of advantage, who can say that some daring agitator may not arise and propose to put the idea into practice? and if such a work should be undertaken, public credit would be overthrown, and every dollar of property in the Commonwealth would be in jeopardy." So fierce was the opposition, that it passed by a majority of a single vote. This was only thirty-eight years ago. These facts show that the wisdom of croakers was as potent then as now in resisting the progress of civilized ideas.

I own a large folio work, entitled "*Proceedings of the Committee of the House of Commons, on the Liverpool and Manchester Railroad Bill, — 1825*"; and it is interesting to trace the history of locomotion, and how clearly Stephenson foresaw the power and value of the locomotive railway at that day; and it makes equally clear the folly and weakness of the leading men of the time, who resisted his efforts.

The government of Great Britain failed to comprehend the railway question, and gave charters to individuals who would undertake their construction.

It was not until the advent of Mr. Gladstone into public life, some twenty-five years ago, that the government provided for taking the railways as public works upon an agreed appraisal.

In the United States it was not then regarded as within the powers or duties of the general govern-

ment to construct railroads, and the matter was left to the several States. Charters were granted, as in England, to parties offering to construct lines, and they have been built as private undertakings; those being seized hold of first that held out the largest assurance of return of profit on capital. Hence the railroads of the United States have been built for profit mainly, with a view to private advantage rather than for the development of industry or for the accommodation of the public, in the largest sense of that expression.

It is now obvious that railroads might have been built and managed with greater economy as public enterprises than through private corporations, securing exemption from overbearing monopoly on the one hand, and uniformity of rates of transport, and equal accommodations for the public, on the other.

Had Maine constructed a well-devised system of railroads at an early day, the number of miles in operation in this State might have been doubled; passengers and freight transported at lesser rates than now, with a surplus of income adequate to the expenses of the State government, and the regular and uniform extension of new lines, without a dollar of burden upon capital, or the slightest tax upon the people.

The railways of the United States cost on an average \$ 40,723 per mile.

Those of England, \$ 156,028 ; of France, \$ 150,749 ; of Belgium, \$ 108,025 ; of Russia, \$ 163,422 ; of Prus-

sia, \$ 129,784; of Austria, \$ 71,471; of the smaller German states, \$ 88,727. The average cost in Europe is \$ 127,091 per mile. The 4,653 miles built or projected in British India, now in process of construction, are estimated to cost \$ 287,600,000, or \$ 60,803 per mile.

The Great Western Railway of England, built by Mr. Brunel, extending from London to Bristol, a distance of 118 miles, cost the following per mile, viz.:—

Procuring Charter,	\$ 8,000
Engineering,	6,000
Land Damages,	35,000
Grading,	159,600
Superstructure,	47,000
Motive Power,	25,000
Incidental,	3,300

The progress of railway construction in this country from 1828 to the end of 1866, used by steam power, without reckoning anything for double tracks or sidings, has been as follows:—

Year 1828,	3 miles.	Year 1843,	4,174 miles..
" 1829,	28 "	" 1844,	4,311 "
" 1830,	41 "	" 1845,	4,522 "
" 1831,	54 "	" 1846,	4,870 "
" 1832,	131 "	" 1847,	5,326 "
" 1833,	576 "	" 1848,	5,682 "
" 1834,	762 "	" 1849,	6,350 "
" 1835,	918 "	" 1850,	7,475 "
" 1836,	1,102 "	" 1851,	8,589 "
" 1837,	1,421 "	" 1852,	11,027 "
" 1838,	1,843 "	" 1853,	13,497 "
" 1839,	1,920 "	" 1854,	15,672 "
" 1840,	3,197 "	" 1855,	17,398 "
" 1841,	3,319 "	" 1856,	19,251 "
" 1842,	3,877 "	" 1857,	22,615 "

Year 1858,	25,090 miles.	Year 1863,	32,471 miles.
" 1859,	26,755 "	" 1864,	33,860 "
" 1860,	28,771 "	" 1865,	34,442 "
" 1861,	30,593 "	" 1866,	35,361 "
" 1862,	31,769 "	" 1867,	36,896 "

At the close of the year 1866, 95,727 miles of railroad had been constructed in the world, principally in Europe and the United States of America, — a vast achievement for a single generation.\* The work of the present generation is to be, not so much railroad construction as railroad reform. The vast sums wasted in the construction of railroads, through ignorance and inexperience, are of trifling amount as compared with the waste now going on in railway management. Practical skill and persistent industry are absorbed by the Express Companies, who take into their own hands the cream of railway traffic through superior skill and economy in conducting their business, if they do not control the leading lines by combinations with portions of Boards of Directors at the expense of the stockholders and the general public.

The Erie Railroad, in 1866, earned \$14,596,413.09; of which \$12,358,307 was consumed in working expenses and government charges, leaving only \$2,238,106.09 of net income on a cost of \$47,341,130. On many other roads the figures would show results equally striking, calling for a complete reform in railway management. Possibly the Express Companies themselves, with their corps of skilled conductors and employees, will take the railroad upon a fair rental, as the shortest mode of relief to unfortunate stockhold-

\* See Appendix.



ers. If the Grand Trunk line of railway to-day was placed in the charge of the Eastern Express Company, it would yield twice the amount of its present net income.

Railways require men of the highest skill, of the keenest intellect, and of executive ability in their management; and a superintendent who manages a long line by telegraph, without proper local responsibility, is in the condition in which General Scott found himself as commander-in-chief of the army of the United States at the first battle of Bull Run, — the movements of which he directed from the secure asylum of his office in Washington City.

In the United States, railroads have cost less than in any other country, and can therefore carry at less rates; and it is here that railroad reform should begin. As a general rule, railways are not worked to one fifth of their capacity, and there is no proper discrimination in charges between slow and fast trains. To transport goods or passengers at the rate of twenty miles per hour costs five times as much as to move the same at ten miles an hour. Increase the speed of transit to forty miles an hour, and it costs five times as much as at twenty miles an hour. The cost of transit, therefore, if roads are in good condition, is in exact ratio to the speed of trains; the increased cost of moving being as the square of the velocity. On express trains in England the charge for passengers is 24 shillings for 100 miles, or  $5\frac{3}{4}$  and 6 cents per mile, while on the slow trains it is only one third of this. Freight is transported much cheaper in England

than in the United States, while in Belgium, where railroads are numerous, and the population more dense than in any other European country, the transit of passengers and goods is cheaper than in any other portion of the globe.

Reforms must commence with us, therefore, by a proper discrimination in favor of slow trains; those who seek the highest speed paying in proportion. The need of this has led to the adoption on the London and Northwestern Railway, between London and Liverpool, of a method of taking in water fished up in side tanks by spouts, through flexible tubes, while the train is moving at the rate of forty miles to the hour. And so great has been the increase of business between Liverpool and Manchester, that more trains arrive and depart daily from a single station on that line, than all the trains that arrive at and depart from the city of Boston daily, over the seven trunk lines of road terminating in that city.

It is easy to perceive, therefore, why railroad reform must commence with us. As soon as there is sufficient business upon a road to pay the running of trains and interest on cost, the price for carrying passengers and freight should diminish in exact proportion to the increase of business. This reduction operates like a charm in the development of new business, the value of heavy products of the interior, such as cord-wood, ship-timber, building material, slate, and farm products, multiply almost in geometric progression; so that coarser articles, produced one hundred miles from the open sea, or from a local market, not

worth the cost of transportation by the ordinary modes, become as valuable as those found or grown at tide-water, or in the neighborhood of great cities. But it is no time to follow out these details ; the facts given may serve as hints as to the direction to which practical ability is to be turned. The coarser work of constructing the road-bed of railways is now understood, and we cannot expect any diminution in the cost of building it ; but in the construction of machinery, in the quality of the superstructure, in the economy of management, and in the supply of comforts to the traveller, great changes are to take place. Wooden sleepers, kyanized or preserved in creosote, will outlast the iron rail, if not maintain a life equal to that of the steel rail, which is gradually taking the place of the iron rail, being more than five times as durable. Steel boilers for locomotive engines will supersede iron ones, and cars will be adjusted with conveniences, comforts, and even luxuries, unknown at this day, enabling travellers to cross the Continent without fatigue, and affording to business men facilities for carrying on communication by letter or telegraph while cars are in motion, and to men of letters opportunity to prepare their manuscripts or correct their proofs while enjoying the luxury of travel.

You all know the condition of things in Maine at the assembling of the last Legislature. The long period from the days of prosperity under the governorship of Enoch Lincoln to those of General Chamberlain had been a gloomy one for Maine. The strug-

gles for personal success in politics had been paramount ideas, with few intermittent exceptions.

Our public domain had been squandered without producing a single public work for our State, while Massachusetts' share of the land aided in building the Western Railroad, and created for her a large school fund; 3,207,680 acres of our public lands were wrested from us by Great Britain, without a shadow of claim to them; a policy was introduced unfriendly to railroads and manufactures; and, to crown the whole, the State, by constitutional inhibition, tied itself up from aiding public improvements, apparently for the benefit of other States, so that our young men might emigrate, and property decline in value. For thirty years Maine seemed steadily falling back in the race of empire.

The promoters of your enterprise, feeling its importance, but finding no better means of carrying it forward, asked permission for the cities and towns interested to be allowed the privilege of taking upon themselves the risk incident to its construction; and a plan was proposed, somewhat novel in its character, it is true, but one that must meet the cordial approval of parties who sincerely desire the construction of the road, — the assumption of the risk by the several cities and towns upon its route, to an amount equal to twenty per cent of their valuation. This is represented by non-preferred stock, insuring the control of the road concurrently with the risk assumed; or, in other words, those that wanted the road could build it, own and

control it: the property of that unfortunate class in every town who own lands and stores, but who do not choose voluntarily to share their part of the burden of building it, being held for their share, and no more.

Municipalities,—towns, cities, and boroughs,—antedate State constitutions. Local organizations for self-preservation,—mutual protection and improvement, and for police and sanitary purposes, whether of Greek or Saxon origin,—are the earliest forms of civil government,—as distinguished from military rule,—based upon the principle of *equality among men*. A majority, by vote, took private property for public purposes,—opening roads, building bridges, clearing streams, erecting mills,—making all the property and persons of the municipality share the burden equally. No one can see any substantial distinction in the principle adopted, to meet new wants, by allowing subscriptions to railroads.

You had, in the county of Waldo, in 1860, a valuation of \$7,740,429, showing an increased valuation of only 36 per cent from 1850 to 1860, while the county of Cumberland showed an increased valuation of 116 per cent from 1850 to 1860 upon her previous large valuation,—which increase was due to the construction of railroads, more especially to the growth of Portland, consequent on the construction of the railway from Portland to Montreal.

Two descriptions of property are mainly benefited by the construction of railroads,—farms and woodland on the route, and fixed property near way-stations and the main terminus. Farms decrease in value in exact ratio of their distance from market.

In 1852 the editor of the Railroad Journal prepared a statement showing the extent and working capacity of railways, with tables illustrating the value of a *ton of wheat* and a *ton of corn* as affected by cost of transportation, which was reprinted in different languages of Europe, and became authority with railway men, like tables of mortality in life insurance, as follows:—

“Upon the ordinary highways, the economical limit to transportation is confined within a comparatively few miles, depending of course upon the *kind* of freight and character of the roads. Upon the average of such ways, the cost of transportation is not far from fifteen cents per ton per mile, which may be considered as a sufficiently correct estimate for the whole country. Estimating at the same time the value of wheat at \$1.50 per bushel, and corn at 75 cents, and that thirty-three bushels of each are equal to a ton, the value of the former would be equal to its cost of transportation for 330 miles, and the latter 165 miles. At these respective distances from market, neither of the above articles would have any commercial value, with only a common *earth* road as an avenue to market.

“But we find that we can move property upon railroads at the rate of  $1\frac{1}{2}$  cent per ton per mile, or for one tenth the cost upon the ordinary road. These works, therefore, extend the economical limits of the cost of transportation of the above articles to 3,300 and 1,650 miles respectively. At the limit of the economical movement of these articles upon the *common* highways, by the use of railroads wheat would be worth \$44.50 and corn \$22.27 per ton, which sums respectively would represent the actual increase of value created by the interposition of such a work.

“The following table will show the amount saved per ton, by transportation by railroads, over the ordinary highways of the country.”

*Statement showing the Value of a Ton of Wheat and one of Corn at given Points from Market, as affected by Cost of Transportation by Railroad and over the ordinary Road.*

Miles from Market.	Transportation by Railroad.		Transportation by ordinary Highway.	
	VALUE AT MARKET.			
	Wheat.	Corn.	Wheat.	Corn.
0	\$ 49.50	\$ 24.75	\$ 49.50	\$ 24.75
10	49.35	24.60	48.00	23.25
20	49.20	24.45	46.50	21.75
30	49.05	24.30	45.00	20.25
40	45.90	24.15	43.50	18.75
50	48.71	24.00	42.00	17.25
60	48.60	23.85	40.50	15.75
70	48.45	23.70	39.00	14.25
80	48.30	23.55	37.50	12.75
90	48.15	23.40	36.00	11.25
100	48.00	23.25	34.50	9.75
110	47.85	23.10	33.00	8.25
120	47.70	22.95	31.50	6.75
130	47.55	22.80	30.00	5.25

Miles from Market.	Transportation by Railroad.		Transportation by ordinary Highway.	
	VALUE AT MARKET.			
	Wheat.	Corn.	Wheat.	Corn.
140	\$ 47.40	\$ 22.65	\$ 28.50	\$ 3.75
150	47.25	22.50	27.00	2.25
160	47.10	22.35	25.50	75
170	46.95	22.20	24.00	00
180	46.80	22.05	22.50	
190	46.65	21.90	21.00	
200	46.50	21.75	19.50	
210	46.35	21.60	18.00	
220	46.20	21.45	16.50	
230	46.05	21.30	15.00	
240	45.90	21.15	13.50	
250	45.75	21.00	12.00	
260	45.60	20.85	10.50	
270	45.45	20.70	9.00	
280	45.30	20.55	7.50	
290	45.15	20.40	6.00	
300	45.00	20.25	4.50	
310	44.85	20.10	3.00	
320	44.70	19.95	1.50	
330	44.55	19.80	00	

Apply these rules to hay, potatoes, lumber, slate, and other products of Maine on your line, and you see at a glance how much wealth will be created by the building of your road.

Ohio statistics illustrate the principle as well as any. In 1829 wheat was worth twenty-five cents a bushel at Cincinnati, and corn ten cents, but they had no access to a distant market. The State built canals, but these were slow coaches. Then came railroads. Ohio seized hold of them and rose rapidly in wealth, greatness, and power, and is to-day the third State of the Union.



In 1841 her valuation was but \$128,353,657, and in 1845 it reached \$145,160,469, — less than that of Maine in 1860; in 1847 she had 262 miles of railway only, in 1850, 575 miles, in 1860, 2,999 miles, and in 1866, 3,402 miles. Her valuation for taxation rose to \$433,872,632, in 1850; to \$860,877,354, in 1855, and to \$959,867,100, in 1860, with an actual valuation in 1860 of \$1,193,898,422, against an actual valuation of \$504,726,120 in 1850, an absolute increase of \$689,172,300, while her 3,402 miles of railway cost only \$135,231,975. Ohio allowed towns, cities, and counties to aid railroads, and you see the result.

The following table shows the polls and valuation of Maine at the several periods named:—

Years.	Polls.	Estates.
1810	51,938	\$ 1,443,138
1820	59,368	20,962,748
1830	66,986	28,807,687
1840	86,544	68,246,288
1845	89,054	67,219,356
1850	105,490	100,037,969
1860	128,899	164,714,168

The value of farms in Maine increased from \$54,861,748 in 1850 to \$78,690,725 in 1860, or \$23,828,977, or at the rate of forty-one per cent, while in Ohio the value of farms increased from \$358,758,603 in 1850 to \$666,564,171 in 1860, or \$307,805,568, or at the rate of eighty-nine per cent. The farms of Maine average 97 acres, those of Ohio 125 acres. The value of farms in Maine is about

\$14 per acre, Ohio about \$33 per acre. The Ohio farms produced in 1860 but 12 bushels of wheat per acre, but the price has advanced tenfold since 1829, and is now worth \$2.50 per bushel in Ohio.

I might cite examples of States nearer home. Rhode Island, Massachusetts, and even New Jersey, States far inferior in natural advantages, which advanced more rapidly than Maine from 1850 to 1860, on account of greater railroad facilities, and the development of industry from better access to market.

But there is nothing so striking in American history as the progress of the Northwest, consequent upon the introduction of railways.

Maine produces hay and potatoes, more profitable crops than wheat. Waldo County annually raises 50,000 tons of hay, 600,000 bushels of potatoes, and other crops in proportion, more than one half of them in the towns on your line to Newport. These products will command about the same price on the line of the railway as in Belfast; and the question is, not whether you can have the railroad, but can you afford to live without it?

Ship-building has been a prolific source of wealth to Maine, and the city of Belfast has been prominent from the number of her vessels built and the amount of tonnage here owned. In 1854 there were built in the district of Belfast forty-nine vessels, equal to 20,246 tons; and the tonnage owned in this district in 1854 was 55,899 tons, and in 1862 it had reached 95,000 tons, according to the returns from the Treas-

ury Department. It is the opinion of the best informed commercial men of this country that *sailing* ships are losing their importance, and cannot regain their former relative standing, from the competition of steamers. Sailing vessels are to the steamship what the stage-coach is to the railway, auxiliaries and side supports, but not competitors on great lines. The railway is every day drawing more and more, both of freight and passengers, from the established lines of steamers, and the steamers are gradually taking the business known as the coasting trade from the sailing vessels. Wharf property has declined in the city of Boston, in consequence of this, to nearly one half its former value. The delivery of freight from railway cars is more convenient than from vessels, and a large freight business is now carried on between Portland and Boston by railway alongside navigable waters, notwithstanding steamers of the best class and well managed, and sailing vessels, carry at the lowest rates. It may be well for the intelligent shipbuilders of Maine to consider these facts, coupled with the discrimination against ships, under our existing tariff. Railways, on the contrary, are enabled every year to carry at lower rates, and as business increases, so that railroads can be worked up to their capacity, passengers and merchandise will be carried at less than one half the present prices for transportation.

I never advocated the building of a railway on the ground of the profitable investment of capital, but upon the same ground as I would advocate the build-

ing of common highways and school-houses. They may prove profitable, but this depends on a variety of circumstances; such as judicious location, economy in building, favorable connections with other roads, and proper management. They used to cost *twice* their estimate, but return in a *fivefold measure* all they cost, in increased wealth, substantial comforts, and innumerable pleasures.

Risks necessarily occur in all business undertakings, but prudent men learn something from the public experience, and the chances are in favor of common fidelity in the carrying out your plans.

If the railroad is once built, it will draw to it all the business that is possible. It carries cheaply to induce production and transportation, and imparts to everything in its route a value unknown before. In Scotland, where industry is active and men intelligent, the very offal of cities, — the prolific cause of sickness and death in many cities, — pays a handsome profit to the railway company for its transportation into the country for farm manure.

An intelligent English writer estimates that the manure of Great Britain produces more wealth annually than the cotton manufactures! If Maine had railroads like Scotland or the North of England, whose soil, climate, and natural features are like those of Maine, our State might have a population equally dense as theirs, with all the comforts, luxuries, and refinements which came in the train of industrious habits, aggregated wealth, and concentrated population.

The secret of the progress of the West, and the vast power of her public men, is the Union of sentiment in favor of public improvements among all classes of its people. Men come forward and become leaders in proportion to their earnestness and comprehension in favor of public improvements. This was the secret of the marvellous power of Douglas and the strength of the popularity of Lincoln. However bitter might be their personal hostilities, no matter how strong the antagonism of parties on other issues, all united as one man to carry forward railroads, and bring capital into their support. The prosperity of the State was the common ambition of political men, regardless of party organization or party names.

The principle of granting alternate sections of public lands in aid of railroads has helped the Northwest, and covered Iowa with a network of railways of almost as uniform a texture as if woven by machinery,—and her public men justly taunt New England with cowardice who shirk responsibility, and shrink from maintaining and defending their own rights.

The claims of Maine and Massachusetts upon the United States may be cited as an example.

The General Government owes Maine and Massachusetts interest on the war debt of 1812–15. During the administration of General Taylor the principle was established, upon the advice of the Attorney-General, Hon. Reverdy Johnson, the ablest lawyer of the country to-day, that interest should be paid by the

General Government in the same manner as by individual debtors.

And the payment of interest on the Galphin claim was howled through the land by all the miserable party hacks of the country as a gross fraud upon the Treasury. But no honest mind can see any good reason why a man dealing with the Government should not fare as well as dealing with an individual. If I owe my neighbor a debt, and cannot meet it when it is due, there is no reason why I should not pay him interest during the time I keep him out of the use of the money. Such was the deliberate decision of Congress and the Executive during the administration of Mr. Buchanan in 1857, and such since then has been the established policy of the Government.

Maine and Massachusetts ask that this principle, known as that of the Maryland case, be applied to their own debt, and that the interest due on the war debt should be paid. These debts have been assigned by the two States to aid the construction of the International Railway, and if we shall succeed in making these claims understood by our Senators and Representatives in Congress, they will be paid,—confidence in this influences the judgment of capitalists and railroad men in other States, though it has failed heretofore to command sufficient assent at home.

Maine ought to fall behind in the race of progress if she will be led by the paltering policy of selfish men, who have not the manhood to stand up for the rights of their own State in Congress.

Skill in finance does not consist in striking from an appropriation bill an item for the payment of an honest debt, but rather in the adoption of measures that shall develop enterprise, stimulate industry, enlarge the circle of trade, and create new means of supply to the National Treasury.

Modern philosophy has established the fact, that the climate and physical features of a country develop the race not only in physical strength and power of endurance, but to the highest attainments in science, art, and civilized ideas. If any one fact as to our State is more clearly established than any other, it is this, that in climate and physical resources Maine is the most favored section of the country.

The noblest men of the late war went forth from our midst, and those who did not give up their lives in the service have returned to the ranks as citizens with enlarged views and clearer knowledge of the advantages of our State. Experience in manufactures has demonstrated the fact, that laborers can work throughout the year in our shops and factories with less diminution of physical strength than in any other portion of the country, giving an advantage to Maine equivalent to ten per cent over the inland States and those lying farther south. Our future importance as a State will depend upon our devotion to practical ideas in the development of manufactures. The water-power of Maine is her strength.

When the King visited Watt's steam-engine, and saw its workings, he was puzzled to know how it could be turned to account. "You are a mechanic," said he to Watt, "and live upon what you can produce and sell. What do you sell?" "Power," replied the modest artisan. Power is the great object of civilization. Vast empires, huge armies, — the aggregation of physical force, — these are the great ideas of modern times. A nation which has power is felt throughout the civilized world. The power of England lies in her climate and her coal-fields. Here has been her strength in modern warfare. Coal made her superior to France. The steam-engine of Watt and the spinning-jenny of Arkwright conquered at Leipsic and overthrew Napoleon at Waterloo. Water-power is the cheapest of all agencies in the production of wealth; and a nation with water-power is great in exact proportion to its extent, availability, and development. Look at the power now running to waste in Maine, and form an estimate of her future greatness.

It was my good fortune to witness the first experiment in locomotion in New England. The Boston and Worcester Railroad Company in 1834 imported from Newcastle-upon-Tyne one of George Stephenson's locomotives, — not unlike those placed on the Bangor and Oldtown road in 1836, — small in stature, but symmetrical in every particular, and finished with the exactness of a chronometer. Placed upon the track, its driver, who came with it from England,



stepped upon the platform with almost the airs of a juggler or a professor of chemistry, placed his hand upon the lever, and with a slight move of it the engine started at a speed worthy of the companion of the "Rocket," amid the shouts and cheers of the multitude. It gave me such a shock that my hair seemed to start from the roots rather than to stand on end; and as I reflected in after years, the locomotive-engine grew into a greatness in my mind that left all other created things far behind it as marvels and wonders.

Great as have been the improvements in implements of agriculture, in manufactures by the spinning-jenny, the power-loom, and the mule-spinner, in means of transit by the steamship, in the art of exact transfer of objects in picture by the photograph, they are as nothing compared with the omnipotent power of the locomotive railway, — the great achievement of man, the most extraordinary instrument for good the world has yet reached, — throwing far into shade the fabled deities of ancient mythology and the boasted virtues of the Lamp of Aladdin. The Railway has done more to relieve the burdens of labor, to minister to man's wants and necessities, and to elevate him in the scale of being than all the agencies heretofore known to him. Its trains traverse the earth with a speed outstripping the bird upon the wing or the sweep of the resistless hurricane, and enable man without danger and without fatigue to transfer himself to distant lands and

more genial climes at will, and to participate in all the physical enjoyments and refined pleasures of city or country life, as the varying seasons make these alternations or the other of them most agreeable to his taste or inclination.

Migration is the secret of health, and variety of production the great means of physical gratification. The railway gives to one community the ideas, the tastes, and the productions of every other, disclosing or creating new sources of enjoyment, and multiplying to an infinite degree every susceptibility to pleasurable emotion.

The railway is in its infancy, and yet it has conquered the world. The military, political, and commercial movements of the age, all acknowledged its power, and each obeys its laws ; social progress, intellectual refinement, and moral culture are the fruits of its labors. It is ever advancing. It will in time overcome the inconveniences of climate and geographical position, so that the luxuries of a southern soil may be enjoyed in freshness and abundance amid the snows of the north, and the more invigorating products of a northern climate soften and relieve the scorching heats of southern skies. Our State is one that will enjoy the richest fruits of the railway. It will fill our harbors with ships bearing the commerce of every sea ; it will plant factories on every running stream, and make our valleys echo to the music of the water-wheel and the spinning-jenny, and our broad plains and hillsides bloom and flourish like a garden. The cities of the sea-side shall exchange commodities

and civilities with the cities of the interior, and the hardy dwellers in the mountains shall come down to the ocean to enjoy its sports, its toils, and dangers; and residents at the sea-side, and those that go upon the ocean, shall seek their summer sports among the highlands and lakes of the interior.

North America is destined to become the seat of the great political power of the world; and it is upon this continent that the railway is to achieve its greatest triumphs. Here the configuration of the earth throughout the northern temperate zone favors industrial habits, similarity of pursuits, and unity of political purpose, leading by inevitable deduction to widespread empire. The centre of this continent is the most productive region of the globe; that of the eastern hemisphere, a vast desert, elevated above the general level of the continent, so as to form a common rain-shed for rivers running in opposite directions, leading to a complete separation of interests; the Russian dominions at the north, the Chinese Empire at the east, and the Indian States of the south, completely severed from each other, while Europe is broken by mountain ranges, divided into local states isolated from each other, with the exception, perhaps, of the northern German states, from the Alps to the Baltic, which may possibly form a great central power under a future Bismarck.

In striking contrast to the Old World, the centre of this continent, by force of physical laws, makes all who dwell within it practically one people. Access

to the valley of the Mississippi, by artificial means, has controlled the civilization of the continent, and produced the great results of our late war.

The colonization of the continent commenced upon the Atlantic slope ; and this east foreland of the continent, stretching one thousand miles towards the continent of Europe, would have been the great highway of the world, but for the rivalships and struggles for its possession by the European powers, who started out at the commencement of the seventeenth century with plans for its colonization. Its possession is of far more value than that of the mouth of the Mississippi.

That portion of North America lying east of Lake Champlain and the Hudson and south of the St. Lawrence, of which Maine is so important a part, is destined to a rapid development hereafter, as soon as its commercial relations are properly established, and to become the most densely populated portion of the globe. For it has water-power in addition to the other elements of physical strength which characterizes other sections of the continent, and is the most healthful of all, from proximity to the sea, the agreeable alternations of its climate, and its uniform supply of moisture, enabling operative labor to continue throughout the year, with less diminution of physical strength than elsewhere, while the length and severity of its winters enforces habits of steady industry, compels the construction of public edifices and permanent dwellings, and leads of necessity to the accu-

mulation of realized wealth, which is only found in large measure in cool latitudes, and upon a severe but retentive soil.

It is only two hundred and sixty years since the English race established title upon this continent, apparently with less means of success than many others of the seven European powers who embarked simultaneously in rival projects for its possession. The English soon demonstrated their superiority. At the end of one hundred years they had grown into eleven distinct colonies, embracing three hundred thousand people. In sixty years more they had possessed themselves of the northern lakes and the eastern waters, holding the Atlantic slope from the St. Lawrence to Florida. In 1783 the great American Republic became established as an independent nation, embracing an area of 815,615 square miles of territory, and over 3,000,000 of people;—the home government retaining the eastern ocean-front, the lower St. Lawrence basin, and a territory west and north reaching to the Pacific and Northern Oceans, containing as now known, a territory of 3,250,944 square miles, a portion of which recently put on the form of a new nationality under the name of the "*Dominion of Canada*." In 1803 Louisiana was acquired, adding 932,928 square miles to our dominions; in 1821 Spain released to us Florida, with 59,268 square miles of territory; and in 1845 we accepted Texas as a State, adding 237,514 square miles to the area of the national domain. In 1846 Oregon added 280,425 square miles

more ; and by the treaty of 1848, 649,762 square miles came to us in California and New Mexico. In 1854 the Gadsden treaty brought in 27,500 square miles of new territory now included in Arizona, and the Russian treaty of 1867 added ALASKA, or Russian America, with 481,276 square miles of new dominion, giving to the United States of America an area of 3,482,278 square miles of the most favored territory of the globe, now inhabited by more than 35,000,000 of people, enjoying equality of right, and speaking a common language.

The physical divisions of the United States may be better understood by the following statement : —

Atlantic Slope,	514,416 square miles.
Northern Lake region,	112,649 “ “
Gulf region,	343,935 “ “
Mississippi Valley and tributaries,	1,244,000 “ “
Pacific Slope, south 49th parallel,	786,002 “ “
Alaska, or Russian America,	481,276 “ “
Total,	<hr/> 3,482,278

The bulk of the population of the United States still occupies the Atlantic slope, holding vast influence by its wealth, commercial development, and manufacturing resources.

The Mississippi Valley, now rapidly filling up, remained comparatively inaccessible till we gained possession of the mouth of the Mississippi River by purchase of Louisiana from France. This opened a new route to the heart of the continent, the great grain-growing and food-producing region of the world.

The civilization and habits of a people at the mouth

of a river naturally move upward by that natural highway, and the Mississippi Valley would apparently have been all slave territory but for the opening of the Erie Canal in 1825, which gave to the more populous free Northern States of the Atlantic slope better access to the Ohio and Upper Mississippi waters than by the tedious journey by river; and the opening of railways directly across the mountain ranges, from the Atlantic States, at right angles with the general course of the Mississippi, and along the shores of the northern lakes, filled the Northwest with men educated in the school of free labor. This settled the struggle in 1865, by the overthrow of the slave power, which contest was a war for dominion between two rival systems of civilization, planted simultaneously two hundred and forty-one years before the outbreak, both of which continued to grow and expand unconscious of their future antagonism, till they awoke from dreams of perpetual peace by the clash of resounding arms. Had there been no railways from the Atlantic States to the Mississippi Valley, the war would now be upon us, or foreign states bordering the Gulf, in a condition of acknowledged independence, through the armed intervention of France and England. We may fairly claim, therefore, that the railway has been the great defender of the government in its hour of trial, while in peace it has been its chief benefactor.

But time forbids us to look far into the future, much less to linger on enchanted ground. The severe duties of the hour summon us to action. While busy hands are pushing out the iron arm of

the railway to the farthest east, on the Atlantic shore, other hands are scaling the Rocky Mountain ridges, on their way to the far-off Pacific seas. Feats in the late war like that which transferred a vast corps from the Army of the Potomac, by the valley of the Ohio, to the destroying army of Sherman in the Southwest, surpass the fabled wonders of the marches of Hannibal and Alexander,—the marvels of ancient campaigns,—while the silent and humane mission of the railway brings us the blessings of peace in the most attractive forms,—in fireside homes, cultivated fields, thriving villages, busy workshops, and the refinements of commercial cities.

As in war, so in peace, the locomotive railway performs its office. Railways will cross the continent at its widest part, connect the upper lakes with the Gulf of Mexico, and bind the Pacific to the Atlantic States in bands of iron, stronger than political bonds; for they will be bonds of mutual interest, social attachment, and commercial advantage, that no power for evil shall ever break.

In the Old World railways shall stretch from the banks of the Neva to the Straits of Gibraltar along the western slopes of the Alps; and from the foot of Italy to the farthest bounds of Siberia on their eastern declivities, in unbroken lines; intersected by lines on parallels of latitude from the German Ocean or the eastern Atlantic shore, to the Bosphorus and the Chinese Sea; breaking down national antipathies, harmonizing different civilizations, and



elevating all in the scale of humanity, until men of all climes and races shall become "one great brotherhood of nations"; realizing all that one of the most charming of our modern English poets has said in his *Song of the Railroads*:—

“ And if, when like a net we lie  
O'er many a distant soil,  
And glad the traveller's mind and eye  
Without a traveller's toil, —  
From mutual virtues understood  
All scorn and hate shall flee,  
What instruments of God and good  
Be mightier than than we!”

# APPENDIX.

## RAILROADS OF THE WORLD.

*Statement of the Length of the Railroads in the several Countries of the World, constructed and in actual Operation at the Close of the Year 1866; with their Cost, the Area and Population of each Country and State where Railroads are in Operation, and the Ratio of Miles of Railway to the Square Mile, and to the Population, of each.*

### WESTERN HEMISPHERE.

United States.	Miles.	Cost.	Cost per Mile.	Area of Country.	Population 1860.	Mile of Rail- way to Sq. M.	Mile of Rail- way to Pop.
		\$	\$	Sq. M.		Sq. M.	Pop.
Maine	502.37	18,242,235	36,315	31,766	628,279	62	1,234
New Hampshire	659.33	22,052,063	33,446	9,280	326,073	14	495
Vermont	594.59	24,892,334	41,864	10,212	315,098	17	529
Massachusetts	1,330.96	79,466,774	59,704	7,800	1,231,066	6	925
Rhode Island	119.24	4,858,799	40,737	1,306	174,620	11	1,467
Connecticut	637.54	24,370,018	38,225	4,674	460,147	7	721
New York	3,025.30	152,570,769	50,431	47,000	3,880,735	15	1,283
New Jersey	904.41	55,994,403	61,913	8,320	672,035	9	743
Pennsylvania	4,037.15	210,080,309	52,037	46,000	2,906,115	11	720
Delaware	157.40	5,606,864	37,279	2,120	112,216	13	714
Maryland & D. C.	522.60	30,573,275	58,501	11,184	762,129	21	1,457
West Virginia	364.75	24,978,843	68,498	20,541	349,698	56	958
Kentucky	625.90	22,392,122	35,776	37,680	1,155,684	60	1,846
Ohio	3,402.98	135,231,975	39,739	39,964	2,339,511	11	687
Michigan	966.12	41,675,724	43,133	56,243	749,113	58	775
Indiana	2,211.80	79,186,767	35,802	33,809	1,350,428	15	610
Illinois	3,250.05	139,084,414	42,791	55,405	1,711,951	17	527
Wisconsin	1,045.41	40,081,360	38,343	53,924	775,881	51	742
Minnesota	392.00	12,450,000	31,760	83,531	172,123	213	439
Iowa	1,154.10	45,480,000	39,407	55,045	674,913	47	498
Missouri	937.75	51,357,077	54,995	67,380	1,182,012	72	1,260
Kansas	240.50	9,750,000	40,540	78,418	107,206	327	445
Nebraska	275.00	12,500,000	45,454	76,928	28,841	279	105
California	321.50	24,200,000	75,272	188,982	379,994	588	1,180
Oregon	19.50	500,000	25,641	95,274	52,465	5,014	2,690
Virginia	1,416.70	49,974,457	35,275	61,352	1,246,381	43	879
North Carolina	977.30	20,020,310	20,485	50,704	992,667	52	1,016
South Carolina	988.93	25,207,977	25,491	29,385	703,812	28	711
Georgia	1,437.22	29,177,663	20,301	52,009	1,057,329	36	737
Florida	407.50	8,868,000	21,762	59,269	140,439	145	345
Alabama	891.16	21,010,982	25,154	50,722	964,296	57	182
Mississippi	867.12	25,416,394	29,315	47,156	791,396	54	913
Tennessee	1,317.78	34,185,215	25,937	45,600	1,109,801	34	842
Arkansas	191.00	4,400,000	43,562	52,198	435,427	273	2,279
Louisiana	335.75	13,627,654	40,577	46,431	709,290	138	2,111
Texas	479.50	17,280,000	36,044	237,504	602,432	495	1,257
Territories				1,243,416	524,387		
Total	36,896.26	1,517,510,765	41,129	3,001,002	31,747,514	81	860

WESTERN HEMISPHERE (*Continued*).

Countries.	Miles.	Cost.	Cost per Mile.	Area of Country.	Population 1861.	Mile of Rail-way to Sq. M.	Mile of Rail-way to Pop.
		\$	\$	Sq. M.		Sq. M.	Pop.
Canada	2,148.50	121,543,199	56,573	357,822	2,507,657	166	1,167
New Brunswick	198.20	7,497,713	37,362	27,704	252,047	139	1,273
Nova Scotia	92.80	4,319,507	46,446	18,746	330,699	202	3,556
Mexico	78.30	4,000,000	51,282	772,672	8,259,080	9,906	105,480
Cuba	396.50	19,825,000	50,000	47,278	1,449,264	119	3,651
Jamaica	13.80	327,000	23,357	6,250	441,264	446	31,518
Venezuela	32.00	2,723,606	85,113	426,700	1,565,000	13,334	48,906
New Granada	47.50	7,653,010	161,116	521,900	2,797,473	10,831	58,280
British Guinea	59.90	5,090,000	100,000	96,300	155,026	1,605	2,584
Brazil	433.30	101,257,444	233,689	2,973,400	10,045,000	6,867	23,198
Paraguay	46.20	4,602,000	100,000	86,200	1,337,431	1,874	29,074
Peru	55.30	2,924,706	52,868	498,700	2,500,000	9,067	45,455
Chili	336.70	19,562,943	58,102	249,900	1,714,319	742	5,087
Argentine Republic	231.00	11,550,000	50,000	1,126,300	2,269,355	4,876	5,452
Total	4,170.00	312,876,128	78,280	7,209,872	34,613,615	4,655	26,078
EASTERN HEMISPHERE.							
British Isles	13,286.00	2,072,988,008	156,028	122,550	29,070,936	9½	2,188
France	8,982.50	1,354,112,892	150,749	213,200	37,472,732	23	4,172
Spain	3,116.40	301,857,620	96,861	189,550	16,031,267	60	5,150
Portugal	433.30	42,166,155	97,314	35,250	3,987,861	81	9,207
Switzerland	824.30	68,691,391	83,333	15,270	2,510,494	18	3,046
Italy	3,213.20	297,510,188	92,590	109,780	24,269,628	34	7,653
Austria	3,830.90	273,798,163	71,471	240,250	32,573,002	63	8,500
Prussia	5,794.80	741,560,320	129,784	135,240	23,577,939	23	4,067
N. German States	1,092.50	89,734,347	88,727	24,677	5,600,394	22	5,127
S. German States	2,540.10	225,375,453	88,727	44,520	9,623,400	17	3,355
Belgium	1,595.10	172,410,677	108,025	11,400	4,940,570	7	3,197
Holland	700.70	67,171,204	95,863	13,600	3,735,682	19	5,329
Denmark	295.10	16,885,950	57,255	14,720	1,608,095	49	5,451
Sweden	1,023.40	96,520,947	94,314	170,099	4,114,141	166	4,041
Norway	43.50	2,416,642	55,555	123,228	1,701,478	2,834	3,956
Russia	2,775.20	453,525,734	163,422	1,565,200	65,863,181	564	23,731
Turkey in Europe	170.60	5,741,590	33,667	203,380	15,700,000	1,189	91,807
Turkey in Asia	142.90	4,811,014	33,667	638,990	16,000,000	4,469	11,189
British India	3,379.10	208,838,517	61,803	1,465,300	180,500,000	433	5,327
Java	101.40	10,140,000	100,000	51,300	13,917,000	507	1,377
Ceylon	36.90	2,280,530	61,803	24,660	2,342,098	666	63,299
Egypt	281.20	28,120,000	100,000	659,000	7,465,000	234	26,565
Algeria	27.70	1,846,676	66,667	85,500	3,000,000	3,053	107,142
Cape Colony	84.50	7,544,667	89,286	104,930	267,100	1,236	3,166
Victoria	331.50	84,366,750	254,500	86,940	574,331	262	1,731
New South Wales	145.50	10,455,630	71,860	322,437	378,935	2,216	2,604
South Australia	73.50	3,629,590	43,940	383,328	140,416	5,208	1,916
New Zealand	16.50	1,650,000	100,000	106,259	175,357	6,440	10,328
Natal	2.00	200,000	100,000	14,400	156,200	720	78,000
Queensland	41.20	4,120,000	100,000	678,000	59,712	2,439	1,456
Total	53,381.50	6,660,470,655	94,447	7,853,058	506,256,947	1,472	9,482









